

terms of functioning and costs and of the design-related and cost-related effects for the manufacturer.

Brief description of the attached drawings

5 In the drawings:

Figure 1: shows a front view of a conventional chair;

Figure 2A: shows the view according to Figure 1 with the moveability of the seat illustrated schematically;

10 Figure 2B: shows the plan view of the chair according to Figure 2A as a motion diagram;

15 Figure 3: shows an exploded view of a *first embodiment* of the seat mounting according to the invention with a *first variant* of the spring element, in the chair according to Figure 1;

Figure 4A: shows a partial section of the *first embodiment* of the seat mounting with the *first variant* of the spring element according to Figure 3, in the assembled state, in a rest position;

20 Figure 4B: shows the arrangement according to Figure 4A inclined laterally to the maximum extent;

25 Figure 5A: shows a partial section of the *first embodiment* of the seat mounting according to Figure 4A with a *second variant* of a spring element with inclination limiting, in a rest position;

Figure 5B: shows the arrangement according to Figure 5A inclined laterally to the maximum extent;

30 Figure 6A: shows, in vertical section, the *first variant* of the spring element from the seat mounting according to Figures 4A and 4B;

Figure 6B: shows, in vertical section, the *second variant* of the spring element from the seat mounting according to Figures 5A and 5B;

Figure 7A: shows a side view of a further conventional chair;

35 Figure 7B: shows a front view of the chair according to Figure 7A;

Figure 8: shows an exploded view of a second embodiment of the seat mounting according to the invention with the first variant of the spring element, in the chair according to Figure 7A;

5 Figure 9A: shows a partial section of the arrangement according to Figure 8 in the assembled state, in a rest position;

Figure 9B: shows a partial section of the second embodiment of the seat mounting according to the invention with the second variant of the spring element in the arrangement according to Figure 9A, with inclination limiting, in a rest position;

10 Figure 10: shows, as a basic illustration in vertical section, a third embodiment of the seat mounting according to the invention with a third variant of a spring element;

15 Figure 11A: shows, as a basic illustration in vertical section, a fourth embodiment of the seat mounting according to the invention with a fourth variant of a spring element; and

Figure 11B: shows a partial section of the arrangement according to Figure 11A
20 in the assembled state, in a rest position.

Exemplary embodiments

A number of exemplary embodiments of the seat mounting according to the invention are described in detail hereinbelow with reference to the attached drawings.

Figure 1

The chair comprises an underframe 1, in this case a conventional star-shaped base, from the center of which a central column 2 extends vertically. The central column 2 may be an unalterable support or may contain an axially acting spring, e.g. a helical spring, a pneumatic spring or a combination thereof. The central column 2 has positioned on it the seat 3 – in this case in the form of a seat shell – in which the user sits. It would also be possible for the seat to be designed as a, for example, angled structure or as a stool top.

Figures 2A and 2B

These figures illustrate the purpose of the invention schematically, namely to provide a mounting for a seat, including a chair, of which the seat allows a swinging movement in the horizontal plane, from a rest position **0**, in all directions **R1** to **RX**, the maximum movement from the rest position **0** being defined by the inclination angle α . For certain applications, the design can establish the possible directions **R1** to **RX** – e.g. only laterally or from the front to the rear – as will be described at a later stage in the text.

10

Figure 3

The underframe **1**, the central column **2** – typically a pneumatic spring – and a shell-like seat **3** are provided here. It is also possible to see a tubular pneumatic-spring covering **20** and a cylindrical push-rod extension **21**. A triggering lever **22** fitted beneath the seat **3** is provided for actuating the pneumatic spring **2**. A *first embodiment* of the mounting comprises a *first variant* of a spring element **4**, a bottom, cup-like casing **5** and a top molding **6**, in this case in the form of a cover plate which is intended for fastening on the top side of the base of the seat **3**. Finally, a seat-cushion panel **30**, which covers the top molding **6**, is provided. The spring element **4** is roughly cylindrical with reduced-diameter sections **40,41** at the top and bottom, a central section **42**, an outer sleeve **43**, a core **44** and an axial through-passage **45**, the latter running through the core **44**.

Figure 4A

25 In the case of the *first embodiment* of the mounting, in the instooled state, the *first variant* of the spring element **4** is accommodated, via the bottom section **41** and the central section **42**, basically in a form-fitting manner by the cup part **50** of the casing **5**. The top section **40** is enclosed basically in a form-fitting manner by the shaped collar **60** on the underside of the top molding **6**, said collar having complementary contours. The spring element **4** is fitted, by way of its axial through-passage **45**, on the pneumatic spring **2**, which terminates conically at the top and has the push-rod extension **21** positioned axially on its triggering push rod **23**, said extension projecting upward out of the axial through-passage **45**, with the re-